



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/806,350 | 03/23/2004 | Hiroshi Mizuhashi | OKI.647 | 3991 |
| 20987 | 7590 | 02/22/2006 | EXAMINER | |
| VOLENTINE FRANCOS, & WHITT PLLC ONE FREEDOM SQUARE 11951 FREEDOM DRIVE SUITE 1260 RESTON, VA 20190 | | | PHAN, TRONG Q | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2827 | |

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



Office Action Summary

Application No.

10/806,350

Applicant(s)

MIZUHASHI, HIROSHI

Examiner

TRONG PHAN

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "VDD" has been used to designate both NOR gates 51 and 53 and inverters 24, 25, 52, 53 and 54 in Fig.3; reference character "Vpp" has been used to designate both NOR gate 22 and inverters 21 and 23 in Fig.3; reference character "VDD" has been used to designate both NAND gates 83 and 88 and inverters 24, 25 and 87 in Fig. 6; reference character "Vpp" has been used to designate both NOR gate 22 and inverters 21 and 23 in Fig. 6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a) the method of connecting the data line to a second sense amplifier when the first bit line is connected to the first sense amplifier as recited in lines 6-7 of claim 1, the feature as recited in claims 3-4, the method of transferring a second data from the data line to a second sense amplifier when the first bit line is connected to the first sense amplifier and the

Art Unit: 2827

method of transferring the second data from the second sense amplifier to a second bit line after the second sense amplifier is disconnected from the data line as recited in 6-9 of claim 8, the feature as recited in claim 9, the method of transferring second data from the data line to a second sense amplifier, wherein the second data is latched in the second sense amplifier, wherein a period of latching the second data from the data line to the second sense amplifier, and a period of transferring the first data from the first sense amplifier to the first bit line, are overlapped as recited in lines 5-9 of claim 13 (it should be noted that all these above features are not readable on the drawings of the present invention since Figs. 1-7 do not show any second sense amplifier besides first sense amplifier 301); b) the common signal as recited in claim 2; c) the first voltage and the second voltage as recited in claims 7 and 17; d) all the features as recited in claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Applicant is requested to point out each of features as objected in items a-d to be read on the respective elements shown in the drawings of the present of the invention

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The substitute specification filed on 1/9/06 has been entered.
4. The disclosure is objected to because of the following informalities:
 - a) further explanation should be provided to describe how NOR gates 51 and 53, inverters 24-25, 52 and 54 in Fig. 3 of the present invention are driven by a VDD level;
 - b) similarly, further explanation should be provided to describe how NOR gate 22, inverters 21 and 23 in Fig. 3 of the present invention are driven by a Vpp level;
 - c) similarly, further explanation should be provided to describe how NAND gates 83 and 88, inverters 24-25 in Fig. 6 of the present invention are driven by a VDD level;
 - d) further explanation should be provided to describe how NOR gate 22, inverters 21 and 23 in Fig. 6 of the present invention are driven by a Vpp level;
 - e) the method of connecting the data line to a second sense amplifier when the first bit line is connected to the first sense amplifier as recited in lines 6-7 of claim 1; the common signal as recited in claim 2; the feature as recited in claims 3-4; the method of transferring a second data from the data line to a second sense amplifier when the first

bit line is connected to the first sense amplifier and the method of transferring the second data from the second sense amplifier to a second bit line after the second sense amplifier is disconnected from the data line as recited in 6-9 of claim 8; the feature as recited in claim 9; the method of transferring second data from the data line to a second sense amplifier, wherein the second data is latched in the second sense amplifier, wherein a period of latching the second data from the data line to the second sense amplifier, and a period of transferring the first data from the first sense amplifier to the first bit line, are overlapped as recited in lines 5-9 of claim 13;; the first voltage and the second voltage as recited in claims 7 and 17; and all the features as recited in claim 18 are not seen to be described in the specification;

f) the word "dose"(line 14, page 7) is misspelled.

Appropriate correction is required.

Allowable Subject Matter

5. Claims 3, 5-6, 10-11 and 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

7. Applicant's arguments filed on 1/9/06 have been fully considered but they are not fully persuasive because:

a) the objections to the drawings set forth under items 1 and 2 in the last office action of 9/8/05 have been overcome by Applicant's Substitute Specification.

b) however, the objection to the drawings under 37 CFR 1.121(d) as failing to show the features as recited in claims 1-18 and the rejection under 112, first paragraph, as failing to describe in the specification in such a way as to enable one skill in the art to read on all the features as recited in claims 1-18;

c) the rejection of claim 19 under 35 USC 102(b) has been overcome by the cancellation of claim 19.

For all above reasons, new grounds of objections to the drawings of the present invention and to the specification have been set forth and made FINAL as above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRONG PHAN whose telephone number is (571) 272-1794. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AMIR ZARABIAN can be reached on (571)272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phan Trong
TRONG PHAN
PRIMARY EXAMINER